

Appl. No. 09/530,746
Amdt. dated May 17, 2004
Reply to Office Action of December 15, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently amended) A method for the specific detection of a nucleic acid comprising the steps:
 - (a)- producing a plurality of amplificates of a section of the nucleic acid with the aid of two primers, one of which binds to a binding sequence A', which is complementary to a sequence A of one strand of the nucleic acid, and the other binds to a binding sequence C which is located in the 3' direction from A and does not overlap A,
 - (b)- contacting the amplificates with a probe having a binding sequence D which binds either to a sequence B or to the complement thereof, wherein the sequence B is located between the sequences A and C, and
 - (c)- detecting the formation of a specific hybrid of the amplificate and probe, wherein the sequence located between the sequences A and C contains no nucleotides or less than 3 nucleotides that do not belong to the sequence region E formed from the binding sequence D of the probe and the sequence of the amplificate bound thereto and the amplificates are shorter 100 nucleotides.
2. (Previously Presented) The method of claim 1, wherein the binding sequence D of the probe overlaps one or both binding sequences of the primers.
3. (Previously Presented) The method of claim 1, wherein at least one of the primers has nucleotides in its non-extendible part which do not hybridize with the nucleic acid to be detected or with its complement.

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4. (Previously Presented) The method of claim 1, wherein at least one of the primers or probe is not specific for the nucleic acid to be detected.
5. (Previously Presented) The method of claim 1, wherein the total length of the amplificate does not exceed 74 nucleotides.
6. (Previously Presented) The method of claim 1, wherein at least one of the primers is immobilizably-labeled and the probe is detectably-labeled.
7. (Previously Presented) The method of claim 1, wherein at least one of the primers is detectably-labeled and the probe is immobilizably-labeled or is immobilized.
8. (Previously Presented) The method of claim 1, wherein the probe is labeled with a fluorescence quencher as well as with a fluorescent dye.
9. (Previously Presented) The method of claim 1, wherein one of the primers is labeled with a first energy transfer component and the probe is labeled with a second energy transfer component which is different from the first energy transfer component.
10. (Previously Presented) The method of claim 1, wherein the amplificate is detected by physical and/or spectroscopic methods.
11. (Previously Presented) The method of claim 1, wherein at least one of the primers is not specific for the nucleic acid to be detected.
12. (Previously Presented) The method of claim 11, wherein two of the primers are not specific for the nucleic acid to be detected.

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13. (Previously Presented) The method of claim 11, wherein the probe is not specific for the nucleic acid to be detected.
14. (Previously Presented) The method of claim 1, wherein nucleotides which are each complementary to A, G, C and T are used in the amplification.
15. (Currently amended) The method of claim 1, wherein hybridization of the probe to the ~~amplificates are~~ is detected by means of mass spectroscopy.
- 16-25. (Cancelled)